

ACCESSION NR: AP4015110

higher the maximum and the flatter the hydrolysis curve; also, the limits of permissible acidity are wider at low temperatures. Agitation, especially in the cooled systems, accelerates hydrolysis, equalizing the composition of the solution and facilitating heat removal. Using an  $H_2O:GeCl_4$  ratio of 7:1, the initial hydrolysis at 00 is 97.41%, and by agitating for 1 hour hydrolysis is increased to 99%. Orig. art. has 5 figures and 1 equation.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: OH

NR REF SOV: 000

OTHER: 00

Card 2/2

10717-65-001(2)/Esp(2) RDP(2) 10717-65-001(2)

ACCESSION NR: AP4045410

8/0136/64/000/009/0074/0076

AUTHOR: Petrov, G. I., Andreyev, V. M., Andreyeva, L. I.

TITLE: Effect of the physical properties of germanium dioxide on its reduction B

SOURCE: Tsvetnyye metally, no. 9, 1964, 74-76 21-27

TOPIC TAGS: germanium dioxide, germanium dioxide physical property, germanium dioxide reduction, germanium tetrachloride hydrolysis, calcination

ABSTRACT: The paper considers some of the physical properties of  $\text{GeO}_2$  prepared by hydrolysis of germanium tetrachloride in deionized water, and their effect on the reduction rate with hydrogen. The physical structure of the dioxide was found to be affected by the method of hydrolysis. Simultaneous loading of the tetrachloride and water results in a fine structure with a highly developed surface, while continuous loading of both leads to coarse, dense dioxide grains. The reduction rate was determined from the pressure drop in the system due to freezing out of water vapor produced by the chemical reaction. The reduction rate was found to increase sharply with decreasing specific gravity of the sample. After filtration under similar conditions, the light-weight germanium dioxide contained 25-30%

Card 1/2

L 10717-65

ACCESSION NR: AP4045410

moisture, while the "heavy" dioxide contained only 6-10%. This also affects the reduction. The usual calcination of germanium dioxide in air may also change its physical properties. Thus, an increase in the calcination temperature leads to an increase in hygroscopicity up to 400-500C, the quantity of hygroscopic moisture removed from light-weight  $\text{GeO}_2$  being 3.6 times as high as from "heavy" germanium dioxide. The amount of water of crystallization removed is exactly the same for both light and heavy germanium dioxide. At higher temperatures, the hygroscopicity decreases, probably due to decreased porosity. Many publications (I. A. Sokolov, T. L. Joseph and others) have noted the relationship between the reduction rate of oxides and their porosity, meaning the porosity after preliminary calcination. The article concludes that the decrease in rate of reduction of  $\text{GeO}_2$  after calcination at high temperatures is caused not only by the decrease in porosity, but also by the formation of a new  $\beta$ - $\text{GeO}_2$  modification which is reduced with difficulty. In tests at high temperatures, the partially reduced germanium powder always contains  $\beta$ - $\text{GeO}_2$ . Orig. art. has: 6 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 002

Card 2/2

LOSKUTOV, Fedor Mikhaylovich[deceased]; Prinimali uchastiye:  
ANDREYEV, V.M., kand. tekhn. nauk; ORLOVTSEV, Yu.V.,  
kand. tekhn. nauk; SMIRNOV, M.P., kand. tekhn. nauk;  
NELEN', I.M., kand. tekhn. nauk; LAKERNIK, M.M., doktor  
tekhn. nauk; GORDON, G.M., kand. tekhn. nauk

[Metallurgy of lead] Metallurgiya svintsa. Moskva,  
Metallurgiya, 1965. 528 p. (MIRA 19:1)

ACC NR: AP6032592

SOURCE CODE: UR/0062/66/000/008/1410/1416

AUTHOR: Andreyev, V. M.; Usova, A. V.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of Sciences, SSSR  
(Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: Diene condensation of ethyl  $\gamma$ -ester of  $\beta$ -formylacrylic acid with 2,3-dimethylbutadiene and divinyl, and reaction of the adducts with hydrazine hydrate

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1966, 1410-1416

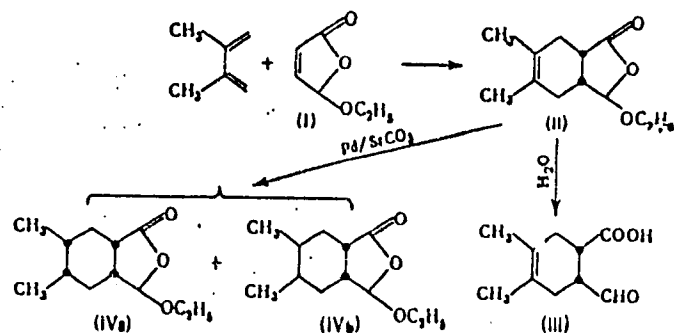
TOPIC TAGS: diene synthesis, butadiene, hydrazine compound, acrylic acid, vinyl compound

ABSTRACT: Diene condensation of ethyl  $\gamma$ -ester (I) with 2,3-dimethylbutadiene produced  $\gamma$ -ester (II), which was reacted as shown below:

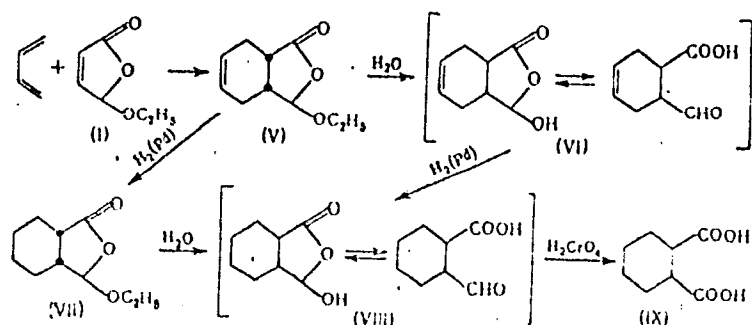
Card 1/4

UDC: 542.91+547.5+541.63

ACC NR: AP6032592



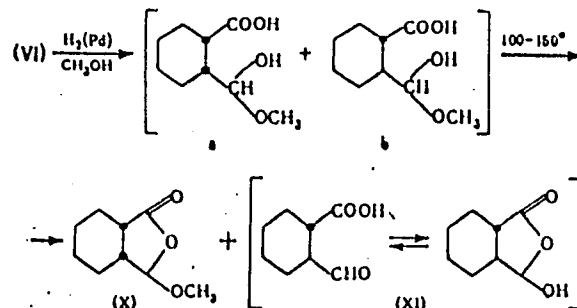
Condensation of (I) with divinyl produced  $\gamma$ -ester (V), whose further reactions are included below:



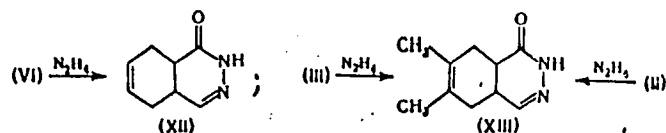
Card 2/4

ACC NR: AP6032592

Hydrogenation of (VI) in methanol involved the following reactions:



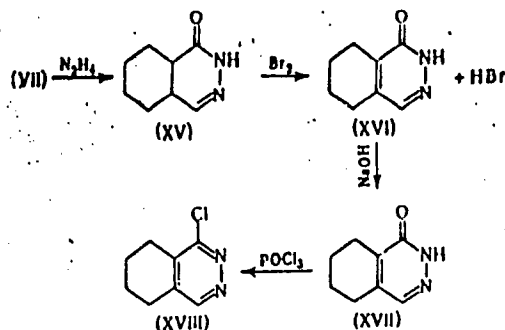
Hexahydrophthalazones (XII) and (XIII) were obtained as follows:



Chlorotetrahydrophthalazine (XVII) was synthesized as follows:

Card 3/4

ACC NR: AP6032592



The synthesized hydrophthalazones can serve as the starting materials in the synthesis of Aprossin analogs. Authors express their thanks to S. S. Yufit for assistance in evaluating the results and to M. B. Shadurova, who participated in the experimental part of this work.

SUB CODE: 07/ SUBM DATE: 13Mar64/ ORIG REF: 003/ OTH REF: 010

Card 4/4



ACC NR: AP6035934

SOURCE CODE: UR/0413/66/000/020/0196/0197

INVENTOR: Vinogradov, I. N.; Andreyev, V. M.; Vinogradov, R. I.

ORG: none

TITLE: Flapping-wing motorcycle [Engine-powered ornithopter mounted on a motorcycle frame]. Class 62, No. 187533

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 196-197

TOPIC TAGS: ~~xxxxxx~~, STOL aircraft, research aircraft, unconventional aircraft, ornithopter

ABSTRACT: An Author Certificate has been issued for an engine-powered ornithopter resembling a monoplane equipped with a folded flapping wing with feather-like blades on the tips. The wings are mounted on the frame of a motorcycle together with a horizontal tail unit, control vanes, a drive, and a system of mechanisms for effecting their flapping motion. To increase wing efficiency, between the feather-like blades' drive gear and longerons is a mechanism for automatically changing the blades' angle of attack; this mechanism consists of a support (articulately attached to the first section of the wing and connected by a pull rod with a lever on the drive shaft) and a round deflecting balancer (attached to the traverse of the end rib of the second section of the wing and attached to the support through a ball, and

Card 1/2

UDC: 629.135/138

ACC NR: AP6035934

the other end is connected with to the crank of the second wing section, which is connected by pull rods with the longerons of the feather-like blades). In order to free the drive mechanism of the wing's natural vibrations, a compensating cross-piece suspension is used, which is connected by a pull rod with the drive-mechanism.cam; at the other end it is connected to a cantilever of the first section of the wing. Orig. art. has: 1 figure.

SUB CODE: 01/ SUBM DATE: 30Dec64

Card 2/2

APPENDIX, "A."

Osnovi izgotovleniya derevyanykh i metallicheskikh modeley (Fundamentals  
on the production of models of wood and metal) Moscow-Leningrad 1946.

ANDREYEV, V. M.

2729. NEW METHODS OF MELTING IN THE CUPOLA. Andreyeff, V. M.  
(3rd. Tech. Sci. Conf. of the Kalinin Polytechnic Inst., Leningrad,  
Sept. 1944, 73-5; Engrs' Digest, Nov. 1946, Z. 366).

Modified cast iron can only be obtained if the liquid metal is superheated. This can be done in the cupola by several methods. Combustion can be improved and the temperature of the metal in the cupola raised, (A) by stimulating the process of combustion of the fuel of CO<sub>2</sub> in place of CO, and (B) by burning any CO formed. Methods of stimulating CO<sub>2</sub> formation include:- (a) introduction of catalysts into the combustion zone; (b) increase of the surface of the burning fuel; (c), increase in the oxygen content of the blast. For combustion of the CO formed the best results have been obtained by adding a few more rows of tuyeras, so as to improve distribution of the air supply. Properly spaced tuyeras, of suitable section, enable air to be distributed evenly over the entire section of the cupola and to burn part of the CO formed at the main level of tuyeras. Tests have shown that by this means the coke consumption could be reduced by 10 to 20 per

cent with increase in output of between 25 and 30 per cent, and rise in temperature of the metal from 20 to 30 deg. C. The total heat produced by the combustion of the fuel is used up as follows: for melting and over-heating the metal, about 50 per cent; for radiation and convection losses, about 10 per cent; and heat taken out to the atmosphere with the escaping gases, 40 per cent. Between 65 and 67 per cent of the heat potential contained in the escaping gases is in the form of carbon monoxide. This can be used up by burning it to carbon dioxide, and thereby preheating the air supply. A recuperator has been developed at the Institute "Zhitomash", based on the design given by Griffin and using a pin type of cast iron recuperator. A series of tests has shown that the temperature at the spout of the cupola was increased by 50-70 deg. C. as compared with operation on cold blast. The mean temperature of the cast iron was 30 deg. C. higher when using 9 per cent coke and hot blast, as compared with the mean temperature of cast iron obtained with 15 per cent coke and cold blast. The temperature of the preheated air reached 270-300 deg. C. At this temperature the pressure in the air chamber was between 430 and 380 mm. water column.

ANDRE<sup>V</sup>EV, V. M.

Osnovy izgotovleniia dereviannykh i metallicheskich modelei. Moskva, Mashgiz, 1946. 113 p. diags.

Fundamentals of the manufacture of wooden and metallic patterns.

DLC: TS240.A75

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ANDREYEV, V.M.

[Principles of foundry form technology (sand)] Osnovy tekhnologii  
liteinykh form (peschanykh). Leningrad, Gos. nauchno-tekhn. izd-vo  
mashinostroit.lit-ry. 1947. 339 p. [Microfilm] (MLRA 7:11)  
(Founding)

ADDENDUM, ...

Lith. Noe Proizvodstvo (Foundry Technology)  
Moscow-Petrozavodsk 1968



ANDREYEV, V.M., professor; FREGER, D.P., tekhnicheskiy redaktor.

[Achievements in the field of foundry practice] Dostizhenia v oblasti liteinogo proizvodstva. Pt. 1. [Economy in the use of critical materials and substitution of non-critical materials] Ekonomiya i zamena nekotorykh defitsitnykh materialov nedefitsitnymi. Leningrad, 1951. 19 p. [Microfilm] (MLRA 7:10)  
(Founding)

KOGEL', I.S., inzh.; TKACHEVSKIY, V.I., kand.tekhn.nauk; ANDREYEV, V.M.,  
prof., otv.red.; VERZHBINSKAYA, I.I., inzh., red.; KRASLAVSKIY,  
G.M., tekhn.red.

[Disk cutters with a mechanical fastening of hard-alloy tips]  
Diskovye frezy s mekhanicheskim krepleniem plastinok tverdogo  
splava. Leningrad, 1952. 6 p. (Informatsionno-tekhnicheskii  
listok, no.18 (359)) (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.  
(Metal-cutting tools)

YASHIN, I.V., inzh.; ANDREYEV, V.M., prof., otv.red.; RYZHIK, Z.M., inzh.;  
FREGER, D.P., tekhn.red.

[Use of control gages in the assembly and welding of metal structures] Primenenie kontrol'no-izmeritel'nogo instrumenta pri sborke i svarke metallokonstruktsii; opyt zavoda. Leningrad, 1952. 5 p. (Informatsionno-tekhnicheskii listok, no.55(396)).  
(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Leningradskiy Dom nauchno-tekhnicheskoy propagandy (for Ryzhik).  
(Measuring instruments)

TEKHT, V.P., inzh.; ANDREYEV, V.M., prof., otv.red.; TYUMENEVA, S.T.,  
inzh., red.; KRASLAVSKIY, G.M., tekhn.red.

[Color method for surface defect detection; experience of the  
Leningrad Metal Works] TSvetnoi metod vyivleniia poverkhnostnykh  
defektov; opyt Leningradskogo metallicheskogo zavoda imeni Stalina.  
Leningrad, 1952. 5 p. (Informatsionno-tekhnicheskii listok,  
no.8(349)). (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.
2. Leningrad-  
skiy metallicheskiy zavod imeni Stalina (for Tekht).
3. Leningradskiy  
Dom nauchno-tekhnicheskoy propagandy (for Tyumeneva).  
(Surfaces (Technology)—Testing)

PERLIS, I.L., inzh.; ANDREYEV, V.M., prof., otv.red.; RYZHIK, Z.M.,  
inzh., red.; NADEZHINA, A.M., tekhn.red.

[Butt welding of short joints by means of the ADSh-500 automatic consumable wire arc-welding machine: from research by the MPS Bridge Research Institute] Svarka stykovykh soedinenii nebol'shoi protiazhennosti shlangovym avtomatom ADSh-500; iz opyta Nauchno-issledovatel'skogo instituta mostov MPS. Leningrad, 1952. 7 p. (Informatsionno-tekhnicheskii listok, no.42 (383)).

(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.  
(Structural frames--Welding)

MALKIN, B.M., starshiy inzh.; ANDREYEV, V.M., prof., otv.red.; SUKHOV, I.V., starshiy inzh., red.; NADEZHINA, A.M., tekhn.red.

[Universal attachments for profile grinding of dies] Universal'noe prispoblenie dlia profil'nogo shlifovaniia puansonov. Leningrad, 1952. 9 p. (Informatsionno-tekhnicheskii listok, no.45 (386)).

(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Leningradskiy Dom nauchno-tekhnicheskoy propagandy (for Sukhov).  
(Grinding machines---Attachments)

ARTEMOV, L.I., inzh.; RAZDUI, F.I., inzh.; ANDREYEV, V.M., prof., otv.red.;  
RYZHIK, Z.M., inzh., red.; FREGER, D.P., tekhn.red.

[Mechanization of a process for coating electrodes by a method  
which involves immersion] Mekhanizatsiia protsessa pokrytiia  
elektrodiv sposobom okunaniia; opyt zavoda. Leningrad, 1952.  
9 p. (Informatsionno-tekhnicheskii listok, no.35 (376)).  
(MIRA 14:7)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.  
(Electrodes) (Welding—Equipment and supplies)

KONTOROV, B.M., inzh., laureat Stalinskoy premii; ANDREYEV, V.M., prof.,  
otv.red.; RYZHIK, Z.M., inzh., red.; FREGER, D.P., tekhn.red.

[Electric-arc hard facing with T-590 and T-620 electrodes of parts  
subject to heavy wear; from practices of hydroelectric and heat power  
stations] Elektrodugovaia naplavka bystroiznashivaiushchikhsia  
detalei elektrodami T-590 i T-620; iz opyta GES i TETs. Leningrad,  
1952. 11 p. (Informatsionno-tekhnicheskii listok, no.1 (342)).  
(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Lenin-  
gradskiy Dom nauchno-tekhnicheskoy propagandy (for Ryzhik).  
(Hard facing)



MAYZEL', A.M., inzh.; ANDREYEV, V.M., prof., otv.red.; LUKIN, O.A., inzh., red.; FREGER, D.P., tekhn.red.

[Replacing the scraping of joint planes of large parts by grinding; experience of the Leningrad Metal Works] Zamena shabrovki ploskosti raz"ema krupnogabaritnykh detalei shlifovaniem; opyt Leningradskogo metalicheskogo zavoda imeni I.V.Stalina. Leningrad, 1952. 11 p. (Informatsionno-tekhni-cheskii listok, no.52 (393))

(MIRA 14:6)

1. Leningradskiy Dom nauchno-tehnicheskoy propagandy.  
(Leningrad—Grinding and polishing)

ZAGORSKIY, F.N., kand.tekhn.nauk; RAUKHVARGER, Z.O., inzh.; VERZHBINSKAYA, I.I., inzh., red.; ANDREYEV, V.M., prof., otv.red.; FREGER, D.P., tekhn.red.

[Efficiency promotion in safety engineering in machinery plants]  
Ratsionalizatsiia v oblasti tekhniki bezopasnosti na mashinostroi-  
tel'nykh zavodakh. Leningrad, 1952. 11 p. (Informatsionno-tekhnicheskii listok, no.111 (452)). (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.  
(Machinery industry--Safety measures)

KUSHNAREV, B.P., inzh.; ANDREYEV, V.M., prof., otv.red.; ZHUKOVA, V.I.,  
starshiy inzh., red.; NADEZHINA, A.M., tekhn.red.

[Nonmetallic chemically-resistant coatings for equipment and  
structures in electroplating shops] Nemetallicheskie khimi-  
cheski stoikiye pokrytiya apparatury i stroitel'nykh konstruktsei  
gal'vanicheskikh tsekhov. Leningrad, 1952. 35 p. (Informatsionno-  
tekhnicheskii listok, no.94(435)). (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.
  2. Proyektno-konstruktorskoye byuro tresta "Montazhkhimzashchita" (for Kushnarev).
  3. Otdel novoy tekhnologii Leningradskogo Doma nauchno-tekhnicheskoy propagandy (for Zhukova).
- (Protective coatings)

KUZ'MIN, M.I., inzh.; ANDREYEV, V.M., prof., otv.red.; LUKIN, O.A.,  
inzh., red.; ~~FREGER, D.A., tekhn.red.~~

[New method for finishing surfaces of parts by cold hardening]  
Novyi metod otdelki poverkhnostei detalei naklepyvaniem.  
Leningrad, 1952. 21 p. (Informatsionno-tekhnicheskii listok,  
no.14 (355)). (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy.  
(Metals--Finishing)

BUTALOV, V.A.; ANDREYEV, V.M., professor, retsentsent; NESSEL'SHTRAUS, G.Z.,  
prof., kandidat tekhnicheskikh nauk; VIDULYA, P.N., prof., doktor tekhnicheskikh nauk, redaktor; YELINSON, I.B. [deceased], inzhener, redaktor; KRASAVTSEV, N.I., kandidat tekhnicheskikh nauk, dotsent, redaktor; MILANOV, O.V., inzhener, redaktor; MIRKIN, I.L., prof., doktor tekhnicheskikh nauk, redaktor; RUKAVISHNIKOV, B.S., inzhener, redaktor; SLAVKIN, V.S., inzhener, redaktor; LEBEDEV, A.I., redaktor; MIKHAYLOVA, V.V., tekhnicheskii redaktor.

[Technology of metals] Tekhnologiya metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1952. 471 p.  
[Microfilm] (MLRA 7:12)  
(Metals)

KHARCHENKO, K.S., slesar'-lekal'shchik; ANDREYEV, V.M., prof., otv.red.;  
SUKHOV, I.V., red.; KLOPOVA, T.B., tekhn.red.

[Sine attachment for finishing gage boards designed by gager  
Konstantin Simonovich Kharchenko] Simusnoe prispособlenie dlia  
dovodki shablonov konstruksii slesaria-lekal'shchika Konstantin  
Simonovich Kharchenko. Leningrad, 1954. 4 p. (Listok novatora,  
no.1(240)). (MIRA 14:7)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Starshiy  
inzh. Otdela novov tekhnologii mashinostroyeniya Leningradskogo Doma  
nauchno-tekhnicheskoy propagandy (for Sukhov).  
(Gages)

GINDIN, I.S., tekhnik-tekhnolog; ANDREYEV, V.M., prof., otv.red.;  
POSTERNYAK, Ye.F., inzh., red.; FREGER, D.P., tekhn.red.

[Swivel carriage for cutting screw threads on turret lathes]  
Povorotnyi support dlia narezaniia rez'by na revol'vernykh  
stankakh. Leningrad, 1954. 5 p. (Informatsionno-tekhnikheskii  
listok, no.6(579)). (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnikheskoy propagandy. 2. Lenin-  
gradskiy Dom nauchno-tekhnikheskoy propagandy (for Posternyak).  
(Lathes--Attachments)

PETROV, G.A., kand.tekhn.nauk, dotsent; DEMYANTSEVICH, V.P., kand.tekhn.nauk, dotsent; RYZHIK, Z.M., inzh., red.; ANDREYEV, V.M., prof., otv.red.; GVIRTIS, V.L., tekhn.red.

[Harmless LPI-2 flux for automatic and semiautomatic welding]  
Bezvrednyi flius LPI-2 dlia avtomaticheskoi i poluavtomaticheskoi svarki. Leningrad, 1954. 5 p. (Informatsionno-tekhnicheskii listok, no.12 (585)).

(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Leningradskiy Dom nauchno-tekhnicheskoy propagandy (for Ryzhik).  
(Electric welding—Hygienic aspects)  
(Flux (Metallurgy))

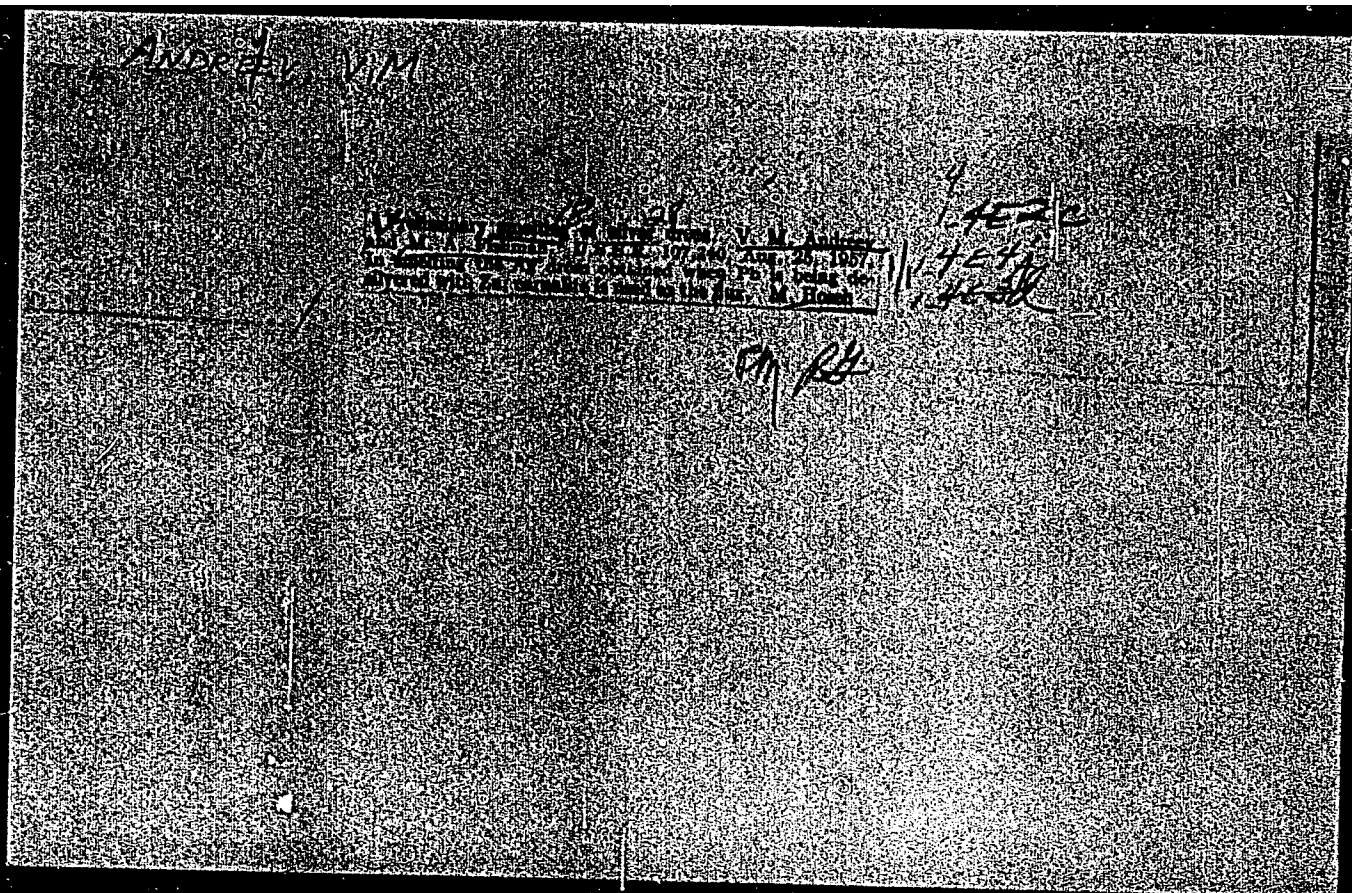


LOBKOV, L.A., inzh.; ANDREYEV, V.M., prof., otv.red.; SUKHOV, I.V.,  
starshiy inzh., red.; FREGER, D.P., tekhn.red.

[Portable drilling machine with a pneumatic drive and electro-  
magnetic base] Perenosnyi sverlil'nyi stanok s pnevmaticheskim  
dvigatelem i elektromagnitnym osnovaniem. Leningrad, 1954.  
10 p. (Informatsionno-tekhnicheskii listok, no.17 (590)).

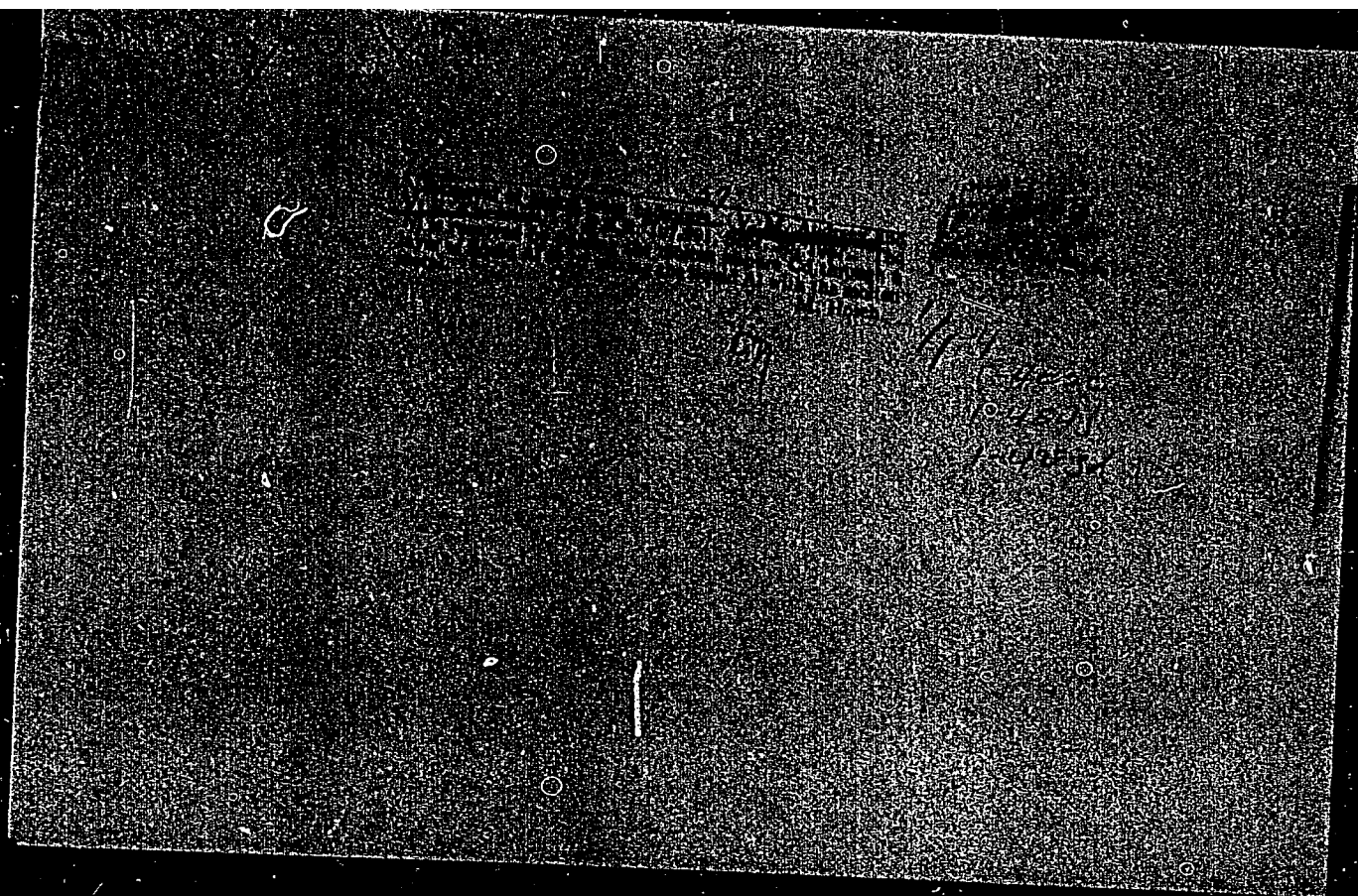
(MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Lenin-  
gradskiy Dom nauchno-tekhnicheskoy propagandy (for Sukhov).  
(Drilling and boring machinery--Pneumatic driving)



"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101520014-7



APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000101520014-7"

ANDREYEV, V.M.

AUTHOR: Abdeev, M.A., Andreev, V.M., Obcharenko, V.P. and Rodyakin, V.V. 136-4-19/23

TITLE: Discussion of the book by Prof. V.I. Smirnov "Shaft Smelting in the Metallurgy of Non-ferrous Metals", Metallurgisdat 1955. (Obsuzhdenie knigi prof. V.I. Smirnova "Shakhtnaya Plavka v metallurgii tsvetnykh metallov", Metallurgizdat, Sverdlovsk, 1955, 520 str.)

PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals) 1957, No.4, pp. 82 - 84, (U.S.S.R.)

ABSTRACT: This is an outline of contributions at a discussion, held at the end of November, 1956, on a recently published book by Prof. Smirnov. The discussion was organised by the All-Union Non-ferrous Metallurgical Research Institute (VNIITsvetmet) and was attended by its staff as well as by representatives from the mining industry and from the Altai Mining-metallurgical Institute of the Academy of Sciences of the Kazakhstan SSR (Altayskiy gorno-metallurgicheskiy Institut AN KazSSR).

L.P. Ushkov (of the research institute) thought the book interesting but containing many defects. For example, the old method of sintering in rotary furnaces is put forward as a new process. Again, the methods of blowing in lead furnaces described are not used at all at Russian works. The book is also said to contain out-of-date diagrams.

Card 1/4

Discussion of the book by Prof. V.I. Smirnov "Shaft Smelting in the Metallurgy of Non-ferrous Metals", Metallurgizdat, 1955. (Cont)

136-4-19/23  
I.I. Kershanskiy point out some defects in the book, e.g. the fact that although the author points out the importance of charge preparation, little material is presented on this subject. Nor did the author give comparative data on sinter-machine operation, and some information on sintering was misleading. This contributor, like the following one, was from the Research Institute. V.V. Rodyakin commended the author's inclusion of the "adsorption-autocatalytic" theory of oxide reduction as well as the other good features of the book. He indicated some defects, however, such as the absence of thermo-dynamical analysis and the altogether insufficient attention given to reduction processes in shaft lead smelting. This contributor also considered it unfortunate that the book does not mention the controversial subject of the behaviour of copper and zinc in the shaft smelting of lead-containing materials, although an article by Egunov, Tseyller, Loskutov et al had appeared in "Tsvetnye Metally" well before the publication of the book. M.V. Yakushin (of the Research Institute) complained of the out-of-date material used by the author in describing plant, as well as the presentation of misleading information on design. V.M. Andreev, of the Ust-Kamenogorsk lead-zinc Combine (Ust-Kamenogorskiy Svintsovo-Tsinsk-

Card 2/4

Discussion of the book by Prof. V.I. Smirnov "Shaft Smelting in the Metallurgy of Non-ferrous Metals", Metallurgizdat, 1955. (Cont.)

136-4-19/23

ovyy Kombinat) said that practice at his works contradicted Smirnov's statement that lead is only partly reduced and is lost in the form of the oxide. Other faults indicated were the incorrect treatment of high top temperature and the formation of scaffolds. V.P. Obcharenko (of the Research Institute) complained of the scanty attention given to combustion aspects of smelting, especially the use of oxygenated blast. N.N. Kubyshev of the Ust-Kamenogorsk Combine considered that Chapter 8 of the book contained mistakes and made recommendations contrary to works practice. M.A. Abdeev (the Altai Institute) suggested that revised editions of the book should contain information on the latest works practice and more information on the structure of mattes and slags in lead smelting. B.S. Khristoforov (The Research Institute) commends the author for including methods of analysis, but considers that the method of Oldwright and Miller might well be omitted from later editions as being misleading. The last contribution reported is by another member of the Research Institute staff, A.P. Sychev. He stated that although the book was on the whole of great interest, it contained many inaccuracies which should be corrected in later editions; nor

Card 3/4

ANDREYEV, V.M.

AUTHOR: Stroitelev I.A. and Andreyev, V.M.

136-6-6/26

TITLE: Formation of Accretions in Electrically-heated Lead-smelting Settlers. (Nastyleobrazovaniye v elektrootstoynikakh svintsovoy plavki)

PERIODICAL: Tsvetnyye Metally, 1957, No.6, pp. 32 - 36 (USSR)

ABSTRACT: The use of electrical heating at the Ust'-Kamenogorsk Lead Works (Ust'-Kamenogorskiy Svintsoviy Zavod) for preventing accretion formation in the settlers has not proved entirely successful. Since accretions lead to operating difficulties, the authors carried out an investigation on accretions taken from three similarly-designed settlers of two furnaces. These worked on a 100% sinter charge, coke and pyrite being 14-15% and up to 3%, respectively. The sinter contained 35-38% Pb, 7% Zn, 2-3% Cu, 13-16% Fe, 6-7% CaO, 11-12% SiO<sub>2</sub>, 0.6% As and 1.5-2% S. Samples were taken from the slag, zinc-sulphide, waste slag and speiss zones of the cold accretions. The mean compositions for each zone are tabulated and discussed. A diagram shows the form of accretions and photomicrographs showing magnetite in slag-and zinc-sulphide zones are given. Magnetite is thought to be the major cause (zinc-sulphide a lesser cause) of accretions, and magnetite is readily formed

Card 1/2 when working with ferruginous, low-silica slags: therefore,

Andreyev, V.M.

136-8-10/21

AUTHOR: Andreyev, V.M.

TITLE: Smelting Silver-Containing Crust under Carnallite (Plavka serebristoy peny pod karnallitom)

PERIODICAL: Tsvetnye Metally, 1957, Nr 8, pp.52-57 (USSR)

ABSTRACT: After indicating that oxidation during smelting is an important obstacle to high degrees of recovery of metals from the crust obtained by treating crude lead with zinc the authors describe experiments on smelting such crusts under flux. Carnallite was selected as the flux and its use was tested under laboratory and large-scale conditions. Materials balances for the main elements for different conditions of smelting and for distillation are shown. The large-scale work showed defects in equipment and these are being rectified, but sufficient data were obtained for the authors to make the following claims for their proposed method: 1) liberation of 92-95% Pb by smelting for return for refining; 2) increased concentration of zinc in the material for distillation and decreased dross production; 3) increased productivity of retorts on account of the great decrease in the quantity of lead charged. M.A.Fishman,

Card 1/2



ANDREYEV, V.M.

AUTHORS: Andreyev, V.M. and Kuzental', V.E.

136-1-8/20

TITLE: New Method for -Refining Cadmium from Nickel (Novyy sposob rafinirovaniya kadmiya ot nikelya)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 41 - 44 (USSR)

ABSTRACT: Recalling the comparative failure of the selective sulphuric-acid solution method developed and adopted at the Ust'-Kamenogorsk Lead-zinc Combine for removing nickel from cadmium, the authors describe their pyrometallurgical method and the preliminary experiments. In these, M.A. Fishman, B.I. Shevtsov, P.I. Barbin and R.G. Galikeyev participated. The method has been granted Author's Certificate No.107291 and requires a metal whose solubility in cadmium is small, or decreases rapidly on cooling, which forms stable compounds with nickel and from the residues of which cadmium can be removed easily. Aluminium satisfies these conditions and the authors describe laboratory experiments in which molten, nickel-containing cadmium was poured into molten aluminium at 670 - 680 °C, the top nickel-rich layer being poured off; in another series, the cadmium was fused under a protective layer at 660 - 670 °C and aluminium was added with stirring, the dross being fused under alkali to remove cadmium. In later laboratory experiments, the refining temperature was lowered to 500 °C by

Card1/2

SOV/137-58-10-20655

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 47 (USSR)

AUTHOR: Andreyev, V.

TITLE: The American Secondary-metals Industry (Amerikanskaya promyshlennost' vtorichnykh metallov)

PERIODICAL: Prom.-ekon. gaz., 1958, 11 apr., Nr 44, p 4

ABSTRACT: Utilization of secondary metals in the USA has now risen to 700 million tons. Capital investments in the secondary metals industry exceed \$ 300 million and the annual output thereof is > 41 million t scrap, based on a 40-hr work week. The scrap-processing enterprises of the USA are capable of providing 7,250,000 t of pressed and briquetted scrap annually to metallurgical plants. Mechanization of the processes of scrap treatment and the processing of slags of the steel and foundry departments at specialized enterprises is described.

V.G.

1. Metals--Processing 2. Social sciences--USA

Card 1/1

SOV/137-58-7-14260

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 44 (USSR)

AUTHORS: Tselikov, A., Andreyev, V., Korolev, A.

TITLE: ~~What's New at the British Metallurgical Plants?~~  
What's New at the British Metallurgical Plants? (Na metallurgicheskikh zavodakh Anglii)

PERIODICAL: Prom-ekon. gaz., 1958, 21 fevr., Nr 23, p 4

ABSTRACT: Bibliographic entry

1. Industrial plants--Gt. Brit. 2. Industrial plants--Development

Card 1/1

FOTIYEV, A.A.; ANDREYEV, V.M.

Combined experiments in producing titanium dioxide by smelting  
with sodium sulfate. Izv. otd. AN SSSR no.7:71-75 '59.  
(MIRA 12:12)

1.Ural'skiy filial AN SSSR.  
(Titanium oxides)

CHIKISHEV, A.G.; ANDREYEV, V.M.

New data on the gypsaum cavern in the vicinity of Pinega. Inform.-  
sbor. Mezhd. kom. po izuch. geol. geogr. kar. no. 1: 198-202 '60.  
(MIRA 15:4)

(Pinega region (Archangel Privince)--Caves)

*Refinement*  
ANDREYEV, V. M., CAND TECH SCI, "IMPROVEMENT OF THE PROCESS  
OF DESILVERIZATION OF LEAD." LENINGRAD, 1961. (MIN OF HIGHER  
AND SEC SPEC ED RSFSR. LENINGRAD ORDER OF LENIN AND ORDER OF  
LABOR RED BANNER MINING INST IMENI G. V. PLEKHANOV). (KL-DV,  
11-61, 217).

-113-

ANDREYEV, V.M.; LOSKUTOV, F.M.

Lead desulfuration theory. Izv. vys. ucheb. zav.; tsvet. met. 4  
no.2:58-64 '61. (MIRA 14:6)

1. Krasnoyarskiy institut tsvetnykh metallo, kafedra metallurgi  
tyazhelykh tsvetnykh metallo.  
(Lead--Metallurgy)  
(Desulfuration)

LOSKUTOV, F.M.; ANDREYEV, V.M.

Slag viscosity from shaft furnace smelting at the Chimkent load  
plant. TSvet. met. 35 no.6:28-31 Je '62. (MIRA 15:6)  
(Chimkent—Lead industry) (Slag)



BEREZA, A.I.; ALEKSEYEV, V.V.; ANDREYEV, V.M.

Operation of settling basins at the Saratov Refinery.

Khim. i tekhn. topl. i masel 8 no.10:27-29 0 '63.

(MIRA 16:11)

1. Saratovskiy politekhnicheskii institut.

ANDREYEV, V.N.

Truck-mounted platform for catching automobile tire casings.  
Kauch.i rez. 21 no.2:45-46 F '62. (MIRA 15:2)

1. Bobruyskiy zavod rezino-tekhnicheskikh izdeliy.  
(Bobruysk—Rubber, Reclaimed)

ANDREYEV, V.N.; VIL'NER, D.G.

Use of old horizontal control materials. Geod. i kart. no. 3:50-51  
Mr '61. (MIRA 14:4)

(Aerial photogrammetry)

ANDREYEV, V.N., inzh.; DOTSENKO, V.Ye., kand.tekhn.nauk; YUFEREV, V.M.,  
inzh.

Power lines along the track. Put' i put.khoz. 4 no.11:28-30 N  
'60. (MIRA 13:12)  
(Railroads--Electric equipment)

ANDREYEV., V.N.

Order of formation of mica-bearing pegmatites as exemplified by the  
Chuyaskiy muscovite region. Biul. MOIP. Otd. geol. 34 no.6:141-  
142 N-D '59. (MIRA 14:3)  
(Mama Valley--Pegmatites)

ANDREYEV, V.N.

Genetic types of mica-bearing pegmatites of the Chuya muscovite  
region. Trudy IGEM no.48:47-54 '61. (MIRA 15:1)  
(Chuya Valley--Pegmatites)

ANDREYEV, V.N., inzh.

Hand-operated well pumps and an apparatus for the carbonation of water.  
Torf.prom. 35 no.2:37 '58. (MIRA 11:5)

1. Torfopredpriyatiye Vasilevichi II.  
(Pumping machinery) (Carbonated beverages)

ANDREYEV, Vladimir Nikolayevich,; GOL'DFEL'D, I.L., red.; LOKHMANOVA,  
M.F., tekhn. red.

[Gem cutting] Ogranka samotsvetov. Moskva, Pt. 2. 1958. 199 p.  
(MIRA 11;12)  
(Precious stones)



ANDREYEV, V.N., inzh.

Automatic machine for packing materials in bags. Mekh.i  
avtom.proizv. 14 no.9:47 S '60. (MIRA 13:9)  
(Packaging machinery)

ANDREYEV, V.N., inzh.

Mechanization of auxiliary operations at the Bobruysk Rubber  
Factory. Mekh. i avtom. proizv. 16 no. 6 1963 38 str. (1963 15:6)

(Bobruysk--Rubber industry--Technological innovations)

DATE: 1954

COMPARISON OF NEUTRON FISSION SPECTRA OF  $U^{235}$

AND  $U^{238}$  V. P. Kovalev, V. N. Andreyev, et al.

Ann. Khim. i. Teor. Fiz. 32, 1087 (1957) Oct. (in Russian)

Results indicate that  $U^{235}$  and  $Pu^{239}$  neutron fission spectra are broader than the spectrum of  $U^{238}$ . Evaluations of the temperature rise in  $U^{235}$  fission fragments compared to  $U^{238}$  yields  $0.01 \pm 0.01$  and  $0.05 \pm 0.01$  Mev. (R. V. J.)

8

1-RML

1

11

AUTHOR:

400028486 V. N.  
Anisimov, V. N.

TITLE:

Measurement of  $\gamma_{\text{eff}}$  and  $\sigma_T + \sigma_C$  for Fast Neutrons on  $U^{235}$  and  $Pu^{239}$  (Isomerize  $\gamma_{\text{eff}}$  and  $\sigma_T + \sigma_C$   $U^{235}$  and  $Pu^{239}$  by fast neutrons).

PERIODICAL:

Atomnaya Energiya, 1958, No. 2, pp. 185-187 (USSR).

SUMMARY:

The measurement of  $\gamma_{\text{eff}}$  and  $\sigma_T + \sigma_C$  was carried out on the condition of specular, a crystal scattering, in the first approximation it is not necessary to take into consideration the elastic scattering of neutrons. The following results of measurements are obtained:

$E_n$ , MeV	$\gamma_{\text{eff}}$ in b		$\sigma_T + \sigma_C$ in b	
	$U^{235}$	$Pu^{239}$	$U^{235}$	$Pu^{239}$
24	$1.0 \pm 0.05$	$1.17 \pm 0.07$	$3.70 \pm 0.05$	$2.56 \pm 0.05$
200	$1.20 \pm 0.08$	$1.22 \pm 0.12$	$2.05 \pm 0.08$	$1.8 \pm 0.11$
500	$1.22 \pm 0.12$	$1.00 \pm 0.15$	$1.10 \pm 0.08$	$1.7 \pm 0.13$

Card 1/2

Measurement of  $\gamma_{\text{eff}}$  and  $\sigma_f + \sigma_c$  for Fast neutrons on  $\text{U}^{235}$  and  $\text{Pu}^{239}$  25-2-24/35

$$+ ) \gamma_{\text{eff}} = \gamma \cdot \frac{\sigma_f + \sigma_c}{\sigma_f + \sigma_c}$$

There are 1 table and 1, figure, 5 of which are blank.

SUBMITTED: August 28, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Spherical geometry-Applications
2. Uranium 235-Energy measurement
3. Plutonium 239-Energy measurement
4. Neutrons-Energy measurement

NOV/29-1958-15

AUTHORS: Leypunskiy, A. I., Abramov, A. I., Andreyev, V. N., Barysnnikov, A. I., Bondarenko, I. I., Galkov, V. I., Golubev, V. I., Gul'ko, A. I., Gustynov, A. G., Kozachkovskiy, O. D., Kozlova, N. V., Krasnopetrov, N. V., Kur'minov, B. L., Morozov, V. N., Nikolayev, M. R., Smirnin, G. N., Stetskiy, Yu. Ya., Ustintsev, F. I., Usachev, L. R., Fetisov, N. I., Sherman, I. Ia.

TITLE: Investigations of the Physics of Reactors With Fast Neutrons. I (Issledovaniya po fizike reaktorov na bystrykh neytronakh)

PERIODICAL: Atomnaya energiya, 1958. Vol. 5, Nr 3, pp. 277-287 (USSR)

ABSTRACT: Since 1950 experiments have been carried out with fast reactors by the Main Administration of the Use of Nuclear Energy. At the Physics Institute of this organization the fast-neutron reactor BR 1 was put into operation early in 1955, and the reactors BR 2 and BR 3 followed in 1956 and 1957 respectively.

Reactor BR 1:

Power	50 MW
Active zone	diameter and height $\sim 1$ m
Fuel	plutonium diameter $\sim 1$ cm
Canning	thin steel tube

Card 1/4

NOV 89 - 1-1-15

# Investigations of the Physics of Reactors with Fast Neutrons..

The active zone may be surrounded by 2 mobile shields. Shield 1 consists of depleted uranium, and shield 2 of copper. An additional shield can be fastened on one side on to the shield with a diameter of 70 cm, so that total thickness can be increased to 60 - 100 cm. With this reactor installations were carried out of: the spatial and energy distribution of the neutrons, of which the results are shown in a table for

$Pu^{239}$  (n,f),  $U^{235}$  (n,f),  $U^{235}$  (n,f),  $U^{238}$  (n,f),  $Np^{237}$  (n,f),

$Pu^{240}$  (n,f),  $U^{238}$  (n, $\gamma$ ),  $Au^{197}$  (n, $\gamma$ ),  $U^{238}$  (n,2n). Measurement of the conversion factor. The latter was determined experimentally as amounting to 2.4 to 2.5. It was also calculated by means of the multi-group computation method in  $S_4$ -th approxi-

mation (Ref 1). The electronic computer was used under the supervision of Professor Ye. G. Kuznetsov. For computation the experimental values for  $\mu$  of V. I. Kalashnikova (Ref 5), G. N. Smirenkin (Ref 6), B. E. Kuz'minov (Ref 7), and for  $\alpha$  the values obtained by P. Ye. Spivak (Ref 8), V. N. Andreyev (Ref 9) were used. As a result of computations the coefficient was found to amount to 2.6.

Card 2/1

55N/82-1-3-15

Investigations of the Physics of Reactors With Fast Neutrons.1

The Distribution of Neutrons in Uranium

The cross sections of the various reactions for the equilibrium spectrum and for the asymptotic spectrum of the isolated uranium was determined both theoretically and experimentally. The asymptotic length of diffusion determined experimentally and theoretically amounts to  $9.1 \pm 0.1$  cm. The average number of fissions of uranium 238 caused by fission neutrons amounts to  $0.17 \pm 0.01$ . This is in agreement with the data given by reference 10.

Furthermore, the influence exercised by the resonance structure of the cross sections upon the spatial distribution of the neutrons is investigated. Kh. B. Mishchenko showed that for neutrons with 24 keV the total cross section for copper is reduced by about three times its amount with a modification of target thickness of from 0.5 to 10 mm. There are 12 figures, 7 tables, and 13 references, 9 of which are Soviet.

(Continued on abstract 7/15)

Card 5 1



SOV. 64- 15

AUTHORS: Leypunskiy, A. I., Abramov, A. I., Andreyev, V. N., Balashnikov, A. I., Bondarenko, I. I., Galkov, V. I., Golubev, V. I., Gal'ko, A. D., Guseynov, A. G., Kazachkovskiy, O. D., Kozlova, N. V., Krasnoyarov, N. V., Kuz'minov, B. D., Morozov, V. N., Nikolayev, M. N., Smirenkin, G. N., Stavisskiy, Yu. Ya., Ukraintsev, F. I., Usachev, L. N., Fetisov, N. I., Sherman, L. Ye.

TITLE: Investigations of the Physics of Reactors With Fast Neutrons. II  
(Issledovaniya po fizike reaktorov na bystrykh neytronakh)  
(Continued from abstract 6/15)

PERIODICAL: Atomnaya energiya, 1958, Vol. 5, Nr 3, pp. 288-293 (USSR)

ABSTRACT: The reactivity and the kinetics of the reactor were measured. It could be shown that in the center of the active zone the weight of the 5 MeV neutrons is higher by  $\sim 15\%$  than that of 250 MeV neutrons. The effective yield of the delayed neutrons in the reactor with a uranium shield exceeds that of a reactor with a copper shield by 1.4 times its amount.

Reactor BR 3:

The active plutonium zone is the same as in reactor BR-1. In the center of the reactor a water-uranium channel is provided, which is separated from the plutonium zone by a uranium layer

Card 1/4

SOV/89-5-3-7 15

Investigations of the Physics of Reactors With Fast Neutrons.II

of 8 cm thickness. The uranium-water lattice consists of cylindrical slugs of normal uranium, which have a diameter of 35 mm. The canning material is aluminum. The ratio between water and uranium is 0,35. The lattice spacing is 40 mm. Measurements carried out with the water-uranium lattice instead of with the pure uranium layer showed:

- 1) The conversion factor is reduced from  $2,45 \pm 0,10$  to  $1,7 \pm 0,2$ .
- 2) In the case of a fixed power output of the active zone the velocity with which the total quantity of plutonium 239 and uranium 235 is formed was increased by 35%.
- 3) The velocity with which plutonium is produced increased by 1,8 times its amount.
- 4) In the case of a fixed power output of the active zone the total power output of the reactor is increased by 2,2 times its amount.

Reactor BR -2:

This reactor was described more in detail in references 12 and 13. Its nominal power output is 120 kW, the maximum output is 200 kW. In the active zone of the reactor BR-2, which consists of plutonium rods, mercury is used as a coolant, which takes up

Card 2/4

SOV/89-5-5-115

Investigations of the Physics of Reactors With Fast Neutrons. II

$\sim 1\%$  of the total volume of the active zone. The regulating rods (interior of shield) are made from a copper-nickel alloy. The external shield consists of uranium slugs canned with stainless steel. Thickness  $\sim 25$  cm. The uranium shield is surrounded by copper of 15 cm thickness.

The presence of mercury in the active zone leads to a decrease of the content of fast neutrons in the spectrum. The conversion factor was  $1,6 \pm 0,2$ .

Theoretically the kinetic equation for this reactor was calculated by G. I. Marchuk according to the method developed by V. S. Vladimirov. Theoretical calculation of the critical mass was carried out with an error of 4%, and that of the effectiveness of the regulating rods with an error of 8%. The effective yield of the delayed neutrons was found to amount to 0,27%, while the experimental value was  $0,24 \pm 0,04\%$ . There are 7 figures, 1 table, and 13 references, 9 of which are Soviet.

Card 3/4

24(0)  
 AUTHORS: Aleksandrov, Yu. A., Andreyev, V. N., Bondarenko, I. I.  
 TITLE: On the Problem of Antigravitation (K voprosu ob antigravitatsii)  
 PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,  
 Vol 35, Nr 5, pp 1305-1306 (USSR)  
 ABSTRACT: In connection with the discovery of heavy antiparticles  
 (antiproton and antineutron) the opinion was expressed in  
 several papers that antiparticles have a negative gravitation  
 mass (Refs 1, 2, 3). Such a hypothesis might explain the  
 absence of antiparticles in our stellar system and in its  
 neighborhood because gravitational repulsion of matter and  
 anti-matter would warrant their spatial separation. The  
 authors in short discuss the extent to which the hypothesis  
 of antigravitation agrees with present physical theories and  
 experimentally established facts. 1) According to experimen-  
 tal data concerning the deflection of positrons and antiposi-  
 trons in a magnetic field, the inert mass of antiparticles is  
 positive. According to present notions, the physical phenomena  
 in a totality of antiparticles must develop in the same manner  
 as in a totality of ordinary particles. Accordingly, the  
 inert masses of particles and antiparticles would be bound

Card 1/2

SOV/55-35-5-48/56

On the Problem of Antigravitation

to have the same (i.e. a positive) sign. This tends to show that the inert mass of antiparticles must be positive. In this case the hypothesis of a negative gravitation mass of antiparticles is apparently in contradiction to the general relativity (principle of equivalence). 2) The assumption that the gravitation mass of antiparticles is negative would lead to additional difficulties in connection with the existence of bosons. 3) To assume the existence of an antigravitation would necessitate radical changes of present physical notions. Direct experimental determination of the sign of the gravitation mass of antiparticles (e.g. by observing the "falling" of positrons in the gravitational field of the earth) would be most desirable. The authors thank Professor D. I. Blokhintsov and F. L. Shapiro for useful discussions. There are 4 references.

SUBMITTED: July 16, 1958

Card 2/2

ANDREYEV, V.N.

21(4)

PHASE I BOOK EXPLOITATION

SOV/2593

International Conference on the Peaceful Uses of Atomic Energy.  
2nd, Geneva, 1958.

Doklady sovetskikh uchenykh i zadaniya reaktorov i yadernaya energiya. (Reports of Soviet Scientists Nuclear Reactors and Nuclear Power) Moscow, Atomizdat, 1959, 707 p. (Series: Itogi nauki i tekhn., vol. 2) Errata slip inserted. 8,000 copies printed.

General Eds.: M.A. Dolleshal, Corresponding Member, USSR Academy of Sciences, A.E. Krasin, Doctor of Physical and Mathematical Sciences, A.I. Leypunskiy, Member, Ukrainian SSR Academy of Sciences, I.I. Borikov, Corresponding Member, USSR Academy of Sciences, and V.S. Fursov, Doctor of Physical and Mathematical Sciences; Ed.: A.P. Alyab'yev; Tech. Ed.: Ye. I. Kuzal.

PURPOSE: This book is intended for scientists and engineers engaged in reactor designing, as well as for professors and students of higher technical schools where reactor design is taught.

COVERAGE: This is the second volume of a six-volume collection on the peaceful use of atomic energy. The six volumes contain the reports presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held from September 1 to 13, 1958 in Geneva. Volume 2 consists of three parts. The first is devoted to the atomic power plants under construction in the Soviet Union; the second to experimental and research reactors, the experiments carried out on them, and the work to improve them; and the third, which is predominantly theoretical, contains problems of nuclear reactor physics and construction engineering. V.S. Fursov is the science editor of this volume. See SOV/2081 for titles of all volumes of the set. References appear at the end of the articles.

# PART II. EXPERIMENTAL AND RESEARCH REACTORS

Leypunskiy, A.I., V.G. Gribin, M.N. Aristarkov, I.I. Borikov, O.G. Kraschovskiy, O.I. Lumbintsev, S.A. Raskov, V.S. Fursov, and A.A. Stukov. Experimental Fast Reactors in the USSR (Report No. 2129)

215

Klimin, I.F., V.A. Dattirizavskiy, I.S. Gagarin, Yu. Yu. Garkov, S.V. Kraschovskiy, and B.G. Kraschovskiy. Fast Reactor with Potassium and Plutonium UG (Report No. 2302)

232

Goncharov, V.V. and et al. Some New and Rebuilt Thermal Research Reactors (Report No. 2185)

243

Brokhovich, B.V., P. Ya. Gerasimov, V.I. Klimenko, P.Z. Shchukov, and V.M. Vilkunskiy. Dismantling an Experimental Organic Moderator Isotope Producing Reactor After Four Years of Operation (Report No. 2297)

319

Fursov, V.S., Ye. D. Yablokov, V.M. Goryunov, V.B. Kraschovskiy, and V.A. Fursov. An Intermediate Reactor for Obtaining High Intensity Neutron Fluxes (Report No. 2142)

334

## PART III. PHYSICS AND ENGINEERING OF REACTOR DESIGN

377

Leypunskiy, A.I., A.I. Abramov, V.N. Andreyev, A.I. Baryshnikov, I.I. Borikov, V.I. Galkov, V.I. Golubev, D. G. Gribin, O.G. Kraschovskiy, O.I. Lumbintsev, M.V. Kozlov, V.V. Kraschovskiy, B.D. Kuznetsov, V.M. Kozlov, M.M. Nikolayev, O.M. Shchukin, V.I. Stetskiy, P.I. Udrantsev, L.M. Usachev, M.I. Petukhov, and V.S. Fursov. Research on the Physics of Fast Neutron Reactors (Report No. 2038)

398

Fursov, V.S. and B.L. Ioffe. Homogeneous Natural Uranium Reactor (Report No. 2236)

411

Fursov, V.S., Ye. S. Antsiferov, V.P. Kozlov, A.V. Kraschovskiy, O.G. Kraschovskiy, and V.S. Fursov. Fuel Burn Up in Water-water Power Reactors and Experiments With the Uranium Water Lattice (Report No. 2145)

534

199

24(4)

207/51-7-1-24/27

AUTHORS: Adrova, N.A., Andreyev, V.N., Koton, M.M., Panov, Yu.N. and Musalev, N.S.

TITLE: Optical and Scintillation Properties of the Oxydiazole-Series Compounds  
(Opticheskiye i staintillyatsionnyye kharakteristiki soyedineniy ryada oksidiazola)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 1, pp 128-129 (USSR)

ABSTRACT: The authors studied plastic scintillators with (I) 2- $\alpha$ -naphthyl-5-(n-biphenyl)-1,3,4-oxydiazole (abbreviated to  $\alpha$ -NBD) and (II) 2-phenyl-5-(n-biphenyl)-1,3,4-oxydiazole (PBD). Their properties were compared with earlier results (Ref 1) on (III) 2,5-diphenyloxydiazole (PPD) and (IV) n-terphenyl. Compounds I and II were prepared as described earlier (Ref 2). Plastic scintillators were prepared by low-temperature polymerization. The scintillation quantum yield was determined using apparatus described earlier (Ref 4). For the purpose of these measurements the scintillation yield of a sample containing 2% by weight of terphenyl in polystyrene was taken to be 100%. Scintillations were excited with  $\gamma$ -rays from  $\text{Co}^{60}$ . The absorption spectra of compounds I and II (Figs 1a, 2a) were recorded using a spectrophotometer SF-4. Fig 3a shows the absorption spectrum of PPD. The luminescence spectra of compounds I and II (Figs 1b and 2b) were obtained by means of a

Card 1/2

Optical and Scintillation Properties of the Oxidazole-Series Compounds SOV/51-7-1-24/27

quartz monochromator and a photomultiplier FEU-19; they were excited with light of 313 mμ wavelength. Fig 3b shows the luminescence spectrum of PPD. The quantum yields of luminescence were determined relative to the yield of a 1 mg/cm<sup>3</sup> solution of anthracene in benzene; these quantum yields were extrapolated to infinite dilutions. The results are summarized in a table on p 129. This table shows that the scintillation yields of α-NBD and PHD are considerably higher (125%) than the scintillation yield of n-terphenyl. Reasons for this are discussed briefly. There are 3 figures, 1 table and 4 references, 3 of which are Soviet and 1 English.

SUBMITTED: January 30, 1959

Card 2/2



21 (9)

AUTHORS:

Andreyev, V. N., Kazachkovskiy, O. D., SOV/89-7-4-7/28  
Krasnoyarov, N. V.

TITLE:

The Behavior of a Reactor With Temperature Auto-regulation

PERIODICAL:

Atomnaya energiya, 1959, Vol 7, Nr 4, pp 363-366 (USSR)

ABSTRACT:

An investigation of the physics of fast-neutron reactors indicates the following: The variations of the reactivity with increasing reactor power may be subdivided into comparatively rapid variations (which are essentially connected with the mechanical deformations of the heat-emitting elements and with the expansion of the coolant) and into slow variations (which are connected with the thermal dilatation of the elements of reactor construction). For some processes the power coefficient of reactivity may be subdivided into an instantaneous power coefficient  $p$  and a retarded power coefficient  $k$  with the average retardation time  $\tau$ . Such a treatment is suited also for reactors with neutrons having medium and thermal energies. The coefficients  $p$  and  $k$  may be both positive and negative. The authors investigated the behavior of a reactor, which is connected only with the above-mentioned temperature effects. The neutrons were subdivided into two groups: instantaneous

Card 1/4

The Behavior of a Reactor With Temperature Auto-regulation

SOV/89-7-4-7/28

neutrons (with the life-time zero) and retarded neutrons (with the life-time  $\tau_0$ ). When the reactor is stopped, the contribution of the retarded power effect decreases exponentially with time. The equation for the reactor kinetics, which corresponds to these conditions is the following:

$$W(t) = \frac{\beta}{\tau_0[\beta - \rho(t)]} \int_{-\infty}^t W(t') \exp\left(-\frac{t-t'}{\tau_0}\right) dt', [\rho(t) < \beta]$$

$$\rho(t) = \rho_0 + \beta W(t) + \frac{k}{\tau} \int_{-\infty}^t W(t') \exp\left(-\frac{t-t'}{\tau}\right) dt'$$

Here  $W(t)$  denotes the power of the reactor,  $\rho(t)$  - reactivity,  $\beta$  - the effective contribution of the retarded neutrons,  $\rho_0$  - the reactivity of the cooled reactor (with  $W(t) = 0$ ).

This system of equations is reduced to a nonlinear differential equation for  $W(t)$  (or for  $\rho(t)$ ), which, by the substitutions  $W(t) = x$ ,  $\rho W'(t) = y$  assumes the form

Card 2/4

The Behavior of a Reactor With Temperature Auto-regulation

SOV/89-7-4-7/28

$$\frac{dy}{dx} = \frac{A_1 y^3 + A_2 y^2 x + A_3 y x^2 + A_4 x^3 + A_5 y^2 + A_6 y x + A_7 x^2}{A_8 y x^2 + A_9 y x}$$

Here  $A_1$  to  $A_9$  are constant coefficients which depend on  $k, p, \tau, \tau_0, \beta, \vartheta_0$ . The authors investigated all 6 singular points of this equation. The most interesting were the points  $x = 0, y = 0$ , and  $x = -\vartheta_0/(k + p); y = 0$ . The surroundings of the first singular point determine the character of the increase of reactor power from zero onwards, and the second singular point determines the behavior of the reactor in the power range near the steady power. In the neighborhood of the steady point the solutions of the above equation are more manifold: There are aperiodically steady and aperiodically non-steady, oscillation-stable and oscillation-unstable solutions. In addition, there is a special type of stable solutions. The ranges within which the solutions enumerated exist are shown by a diagram. Also the behavior of the integral curves on the whole is investigated. The steady point is always

Card 3/4

The Behavior of a Reactor With Temperature Auto-  
regulation

SOV/89-7-4-7/28

stable. Three diagrams show characteristic cases of the behavior of the integral curves. The authors thank A. I. Leypunskiy for his interest in the present investigation. There are 4 figures and 7 references, 4 of which are Soviet.

SUBMITTED: January 8, 1959

Card 4/4

32996  
S/641/61/000/000/023/033  
B108/B102

26.2245

AUTHOR: Andreyev, V. N.

TITLE: Inelastic scattering of fission neutrons and of 0.9-Mev neutrons from  $U^{235}$  and  $Pu^{239}$

SOURCE: Krupchitskiy, P. A., ed. Neytronnaya fizika; sbornik statey. Moscow, 1961, 287 - 293

TEXT: The inelastic scattering cross sections of fission neutrons and of 0.9-Mev photoneutrons from  $U^{235}$  and  $Pu^{239}$  were measured with the transmission method. The specimens were hollow spheres or sheets inside which fission chambers with  $Np^{237}$ ,  $U^{238}$ ,  $Th^{232}$  were placed. This chamber was to detect the fission neutrons produced on a thin surface layer of the specimen when the neutron beam from a reactor thermal column hit it. The background caused by resonance and fast neutrons was determined with a cadmium screen around the test sphere. It was 2 - 3%. The inelastic neutron scattering cross sections for 90% enriched  $U^{235}$ , pure  $U^{235}$ , and

Card 1/1 2

32996

Inelastic scattering of fission...

S/641/61/000/000/023/033  
B108/B102

pure  $\text{Pu}^{239}$  as calculated from the counting rates of various fission chambers are given in Table 2. The study of the inelastic scattering of 0.2-Mev neutrons from an Na-Be source by means of a fission chamber with an  $\text{Np}^{237}$  threshold detector was similar. The inelastic scattering cross sections for  $\text{U}^{235}$  ( $2.6 \pm 0.2$  barns),  $\text{U}^{238}$  ( $1.0 \pm 0.3$  barns), and  $\text{Pu}^{240}$  ( $2.8 \pm 0.3$  barns) were calculated from the neutron fluxes in the center of the test spheres with  $\text{Np}^{237}$  and/or  $\text{U}^{238}$  detector and from the difference of the  $\text{Np}^{237}$  and  $\text{U}^{238}$  fission chambers. The author thanks A. I. Leypunskiy, O. D. Kazachkovskiy, I. I. Bendarenko, and Yu. Ya. Stavitskiy for assistance. Mention is made of Yu. S. Zampachin et al. (Atommaya energiya, 4, no. 4, 185 (1956)). There are 4 figures, 5 tables, and 10 references: 5 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: Allen R. et al. Phys. Rev., 104, 151 (1956); Beyster J. R. et al. Phys. Rev., 104, 1519 (1956); Hughes D. J., Schwartz R. B. Supplement no. 1 to "Neutron Cross Sections", BNL-325 (1957); Batchelor R. Proc. Phys. Soc. A69, 294 (1956).

Card 2/1 3

89256

S/048/61/025/001/022/031  
B029/B063

24.6600(1160,1158,1138)

AUTHOR:

Andreyev, V. N.

TITLE:

(n, $\alpha$ ) Reaction induced by thermal neutrons in Pu<sup>239</sup>

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya,  
v. 25, no. 1, 1961, 121-123

TEXT: The results of a study of the reaction Pu<sup>239</sup>(n, $\alpha$ )Pu<sup>236</sup> induced by thermal neutrons are presented. The experimental arrangement used for the purpose is schematically represented in Fig. 1. The ranges of alphas produced by capture of thermal neutrons were analyzed with a range meter consisting of a proportional end-window counter of the type T-25 БФЛ (T-25 BFL) and of a set of thin Al foils. The greatest difficulty to be overcome was the measurement of neutron-induced Pu<sup>239</sup> fissions. The principal measurements of alpha spectra for the decay of Pu<sup>240\*</sup> into the ground state were performed at an energy of 11.46 Mev. Fig. 3 illustrates the spectrum of alpha particles emitted by plutonium, which has been measured with two devices of different resolution. The spectrum contains a monoenergetic line with  $E_{\alpha} = 11.4 \pm 0.1$  (Range: 13.3 cm in air).

Card 1/4

89256

(n,α) Reaction induced by thermal...

S/048/61/025/001/022/031  
B02/B063

The measured energy is in good agreement with the value expected for  $\text{Pu}^{240*}$ . Alpha spectra taken at higher energies showed no essential differences. Below 1 Mev the alpha spectrum has a non-monotonic character but is not distinctly resolved in individual groups. According to data on the fission cross section of  $\text{Pu}^{239}$  with emission of alpha particles, and on the strength of data on the spectrum of long-range alphas, the cross section for the (n,α) reaction with emission of an alpha particle ( $E_\alpha = 11.4$  Mev) is  $\sim 20$  mb, which corresponds to  $\Gamma_\alpha \sim 2 \cdot 10^{-6}$  ev ( $\Gamma_\gamma \sim 4 \cdot 10^{-2}$  ev). Alpha transitions from  $\text{Pu}^{240}$  to  $\text{Pu}^{240*}$  are schematically shown in Fig. 5. A comparison between the result obtained here and the conclusions drawn from the cascade theory of alpha decay indicates that the potential barrier has the same form as the barrier, through which the alpha particle passes in an ordinary  $\text{Pu}^{240}$  decay. A calculation for a barrier with  $R = 9.3 \cdot 10^{-13}$  cm shows that  $(P^*/P)_{\text{theor}} = 3.3 \cdot 10^{20}$ . The experimental ratio between the decay constants of  $\text{Pu}^{240+}$  and  $\text{Pu}^{240}$  yields  $(\lambda^*/\lambda)_{\text{exp}} = 10^{21}$ . When a thermal neutron is captured by  $\text{Pu}^{239}$ ,  
Card 2/4



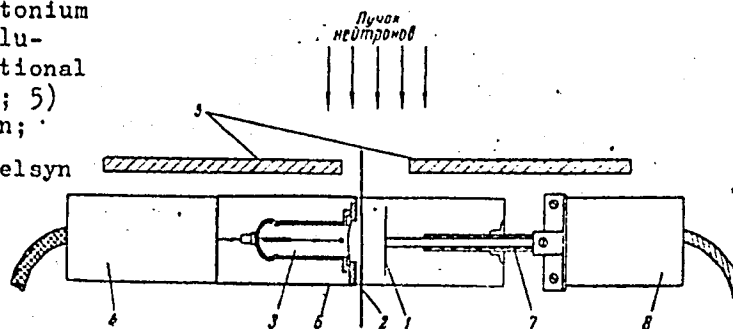
89256

(n,α) Reaction induced by thermal ...

S/048/61/025/001/022/031  
B029/B063

the states  $0^+$  and  $1^+$  are formed if the parity of the  $P^{239}$  nucleus is positive, and the state  $1^-$  if its parity is negative. The transition from the state  $1^+$  to the ground state of  $U^{236}$  is forbidden. V. V. Vladimirovskiy is thanked for interest. This is the reproduction of a lecture read at the Tenth All-Union Conference on Nuclear Spectroscopy, Moscow, January 19-27, 1960. There are 4 figures and 6 references: 2 Soviet-bloc and 3 non-Soviet-bloc.

Legend to Fig. 1: 1) Plutonium specimen; 2) disk with aluminum filters; 3) proportional counter; 4) preamplifier; 5)  $B_4C$  screens; 6)  $Cd$  screen; 7) adjusting screw; 8) selsyn motor.

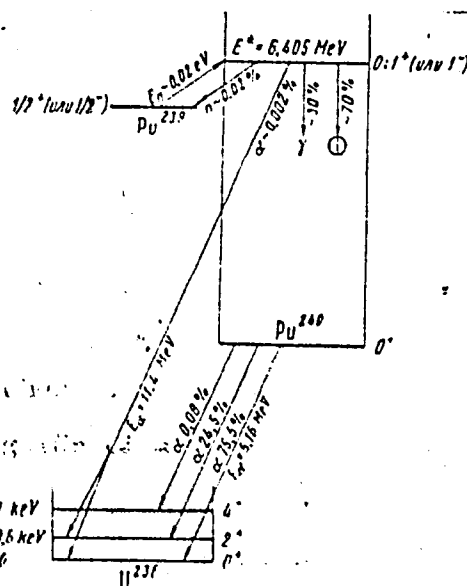


Card 3/4

89256

(n,α) Reaction induced by thermal ...

S/048/61/025/001/022/031  
B029/B063



Card 4/4

Fig.

10761

S/120/62/000/004/042/047  
E140/E420

24 070  
AUTHORS: Barmin, V.V., Bysheva, G.K., Tumanov, G.K.,  
Agapkin, I.I., Andreyev, V.N., Veselov, M.A.,  
Gol'din, L.L., Luzin, V.N., Radkevich, I.A.,  
Sokolovskiy, V.V., Stadnikov, A.G.

TITLE: Investigation and correction of the horizontal  
component of the low-induction magnetic field of the  
proton synchrotron

PERIODICAL: Priory i tekhnika eksperimenta, no.4, 1962, 223-229

TEXT: Permalloy probes modulated at 10 kcs were used to measure  
the position of the neutral plane of the magnetic field. It was  
found that the distortion of the neutral plane in the residual  
field was determined mainly by the neutral pole. This distortion  
decreased as the excitation of the C-blocks was increased.  
Due to hysteresis effects, the measurements had to be carried out  
under operating conditions. A description of the probe and its  
associated circuits is given. The measurements show that 67 of  
the magnets have a deviation of the neutral plane in the range  
+ 0.5 mm, 16 magnets have 0.5 to 0.6 mm, 3 magnets 0.6 to 0.7 mm  
Card 1/2

Investigation and correction ...

S/120/62/000/004/042/047  
E140/E420

and 12 magnets  $\geq 0.7$  mm. The average error of measurement is  $\pm 0.17$  mm. The method of correcting the neutral plane errors by means of windings on the neutral poles is described. There are 11 figures. ✓

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki  
GKAE (Institute of Theoretical and Experimental  
Physics GKAE)

SUBMITTED: April 11, 1962

Card 2/2

S/056/62/042/003/047/049  
B108/B102

AUTHOR: Andreyev, V. N.

TITLE: Fine structure of nuclear masses developed during  $\alpha$ -decay

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 3, 1962, 913-915

TEXT: It was observed that the energies in gradual alpha decay processes involving nuclei with odd  $A > 230$  obey, within the limits of experimental error, the law  $Q_{\alpha}(A + 4i, Z + 2i) = Q_{\alpha}(A, Z) + i\epsilon + m\epsilon$  (1), where  $i$  and  $m$  are positive or negative integers. The amount of  $\epsilon$  as determined by the method of the least squares is  $0.174 \pm 0.002$  Mev. The quantity  $\epsilon$  assumes different values for nuclei with  $A = 4n + 1$  and  $A = 4n + 3$ , being equal to 0.154 and 0.049 Mev, respectively. Experimental values taken from various sources (Refs. 4-8, see below) are compared with the results calculated from Eq. (1) (Table). This formula indicates that not any, but only certain mass differences of the different nuclei actually occur. This behavior is called fine structure of the nuclear masses. Formula (1) interrelates the energies of the alpha decays within one chain of alpha-  
Card 1/3 ✓

Fine structure of nuclear ...

S/056/62/042/003/047/049  
B108/B102

active nuclei. Different chains can be interconnected by considering the quantities  $Q_\alpha/\epsilon$ . For each nucleus one can choose an integer  $N$  such that the quantity  $(Q_\alpha/\epsilon - N)$  changes linearly with  $A$  according to formula (1), and with constant  $A$  changes with  $Z$  according to an almost quadratic law. In one of the variations of such a structure, the parity of the figure  $N$  is in strong correlation with the parity of alpha decay into the ground state. In 20 cases of the 23 for which data on the parity are available, these characteristics are the same. V. V. Vladimirovskiy and I. S. Shapiro are thanked for discussions. [Abstracter's note: Complete translation.] There are 1 table and 10 references: 2 Soviet and 8 non-Soviet. The most important references read as follows: Ref. 4: A. H. Wapstra. Nucl. Phys., 18, 587, 1960; Ref. 5: T. A. Eastwood et al. Phys. Rev., 107, 1635, 1957; Ref. 6: S. A. Baranov et al. Izv. AN SSSR, seriya fiz., 24, 1035, 1960; Ref. 7: L. Phillips et al. Phys. Rev. Lett., 1, 215, 1958; Ref. 8: J. E. Gindler, D. W. Engelkemeir. Phys. Rev., 119, 1645, 1960

SUBMITTED: December 9, 1961

Card 2/4

ANDREYEV, V.N.; SIROTKIN, S.M.

Emission of long-range  $\alpha$ -particles C E  $\alpha > 10$  Mev. by Pu<sup>239</sup>  
and Po<sup>210</sup> nuclei. Izv. AN SSSR, Ser. fiz. 27 no.10:1250-  
1252 '63.

Multilayer ionization chamber for spectometric recording of  
rare event involving long-range  $\alpha$ -particle emission.  
(1253-1257) (MIRA 16:10)

ACCESSION NR: AP4031134

S/0056/64/046/004/1178/1181

AUTHOR: Andreyev, V. N.; Sirotkin, S. M.

TITLE: Search for He-5 among the products of fission of U-235 by thermal neutrons

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1178-1181

TOPIC TAGS: helium 5, uranium 235, thermal neutron fission, fission product, long range fission fragment, isotopic composition, isotopic fragment composition, delayed neutron, short lived delayed neutron

ABSTRACT: In view of previous failures to observe  $H^5$  in fission by various means, an experiment was set up to investigate the isotopic composition of the long-range particles emitted following fission of  $U^{235}$  by thermal neutrons. The experimental procedure was based on the determination of  $dE/dx$  for particles with a fixed range. The discriminator biases for the various chambers were chosen to register the helium isotopes  $H^5$  with only a small loss of efficiency. The results show that the yield of  $H^5$  has an upper limit of  $2 \times 10^{-5}$  nuclei per fission, which is much smaller than the yield of the most short-lived group of delayed neutrons for

Card 1/8 ✓



ACCESSION NR: AP4021124

which H<sup>5</sup> could be a precursor. "The authors are grateful to corresponding member  
AN SSSR V. V. Vladimirevsky for interest in the work." Orig. art. has: 3 figures  
and 1 table.

ASSOCIATION: None.

SUBMITTED: 15Jul63

DATE ACQ: 07May64

ENCL: 01

SUB CODE: FH, NS

NR REF SOV: 002

OTHER: 009

Card 2/3

L 02211-67 EWT(1) RO

ACC NR: AR6031183

SOURCE CODE: UR/0434/66/000/008/F232/F232

AUTHOR: Andreyev, V. N.

27  
C

TITLE: Effect of Rauwolfia serpentina derivatives and ganglia blocking drugs on cholesterol and lecithin in the blood serum and the blood pressure in patients with malignant hypertension 22

SOURCE: Ref. zh. Biologicheskaya khimiya, Abs. 8F1815

REF SOURCE: Tr. 4-y Nauchn. sessii. Aktyubinskiy med. in-t. Alma-Ata, Kazakhstan, 1965, 48-51

TOPIC TAGS: blood, blood pressure, blood disease, drug effect

ABSTRACT: The increased levels of cholesterol in blood plasma were noted in patients at the onset of stage II "A" of malignant hypertension. With the progression of the disease, hypercholestermia was noted in a significant number of cases. Following therapy with Rauwolfia serpentina derivatives and ganglia blocking drugs, the blood pressure either decreased or returned to normal in patients in the II "A" and "B" stages. A slight drop of the cholesterol levels in blood plasma was noted whereas the lecithin-cholesterol coefficient increased. The therapeutic effect was

Card 1/2

Card 2/2

LC

ANDREYEV, V.N.

Experience in the introducing of pneumatic rubber clutches in  
the Bobruysk Factory of Technical rubber Goods. hand. 2 rev.  
24 no.5:49 My '65. (HRA 18:9)

1. Bobruyskiy raved rezino-tekhnicheskikh izdeliy.

L 04225-67 EWT(m)

ACC NR: AR6031856

SOURCE CODE: UR/0058/66/000/006/V030/V030

AUTHOR: Andreyev, V. N.; Popov, Yu. P.

25  
B

TITLE: Slow-neutron induced multiple-particle reaction

SOURCE: Ref. zh. Fizika, Abs. 6V249

REF SOURCE: Byul. Inform. tsentra po yadern. dannym, vyp. 2, 1965, 5-24

TOPIC TAGS: neutron induced reaction, multiple particle reaction, slow neutron

ABSTRACT: This is a review of data on the cross-sections of slow-neutron induced multiple-particle reactions. The region of investigated neutron energies goes from heat energies to tens of kev. [Translation of abstract]

SUB CODE: 18, 20/

1/1, dsd

ANDREYEV, V.N.

Function of blood storage at various stages of hypertension.  
Vrach.delo supplement '57:39 (MIRA 11:3)

1. Kafedra fakul'tetskoy terapii (zav.-dots. P.K.Lipatova)  
L'vovskogo meditsinskogo instituta.  
(HYPERTENSION) (BLOOD VOLUME)

ANDREYEV V. N.

NAZAROV, N.V.: ~~ANDREYEV V. N.~~

Servicing numerical code automatic blocking apparatus. Avtom.,  
telem.i sviaz' no.6:26-27 Je '57. (MLRA 10:7)

1. Zamestitel' nachal'nika Tatarskoy distantzii signalizatsii i  
svyazi Omskoy dorogi (for Nazarov).
2. Starshiy inzhener distantzii.  
(Railroads--Signaling--Block system)

ANDREYEV, V.N.

Quantity of circulating blood in various stages of hypertension.  
Vrach.delo no.6:651 Je '57. (MLRA 10:8)

1. Kafedra fakul'tetskoy terapii (zav. kafedroy - dotsent P.K.  
Lipatova) L'vovskogo meditsinskogo instituta  
(HYPERTENSION) (BLOOD VOLUME)

USSR/Human and Animal Physiology (Normal and Pathological).  
Blood Pressure. Hypertension.

T-4

Abs Jour : Ref Zhur - Biol., No 16, 1953, 74798

Author : Andreyev, V.N.

Inst : ~~V.V. Zhuravskiy~~

Title : Volume Content of Erythrocytes in Venous Blood During  
High Blood Pressure.

Orig Pub : Sov. meditsina, 1957, No 7, 83-84.

Abstract : Investigations were conducted in 118 patients with high blood pressure in all 3 stages and in patients with a rapidly progressive form. An insignificant increase of the volume content of erythrocytes in the I stage of the illness was noted (50.2% with normal 46-48%). In the II and III stages of the illness and with rapidly progressive form the volume content of erythrocytes in the venal blood was lower than normal. -- V.Yu. Ostrovskiy.

Card 1/1



ANDREYEV, V.N.

KEVDIN, N.A., prof., zasluzhennyy deyatel' nauki [deceased]; ANDREYEV, V.N.  
(L'vov)

Rectal administration of large novocaine doses in the treatment  
of hypertension. Klin.med. 35[i.e.34] no.1 Supplement:7 Ja '57.  
(MIRA 11:2)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. N.A.Kevdin  
[deceased]) L'vovskogo meditsinskogo instituta (dir. - prof.  
L.N.Kuzmenko)

(NOVOCAINE) (RECTUM, MEDICATION BY) (HYPERTENSION)

ANDREYEV, V.N.

Novocaine clysmata in treating hypertension. Vrach.delo no.3:291-293  
Mr'58 (MIRA 11:5)

1. Kafedra fakul'tetskoy terapii (zav. - dots. P.K. Lipatova)  
L'vovskogo meditsinskogo instituta.  
(HYPERTENSION)  
(NOVOCAINE)

ANDREYEV, V. N., Candidate Med Sci (diss) -- "The quantity of circulating blood and the functions of the blood depots in hypertension". L'vov, 1959. 12 pp (Min Health Ukr SSR, L'vov State Med Inst), 200 copies (KL, No 22, 1959, 120)

ANDREYEV, V.N.; MOL'KOVA, I.F.

Digitalis lanata Ehrh. in Moldavia. Uch. zap. Kish. un. 39:93-103  
'59. (MIRA 14:9)

(ZLOTIY REGION--DIGITALIS)